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ROCKWELL AUTOMATION, INC./BF
ATTENTION: SUSAN M. DONAHUE, E-7F19
1201 SOUTH SECOND STREET
MILWAUKEE, WI 53204

EXAMINER	
MEUCCI, MICHAEL D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/964,916	BATKE ET AL.	
	Examiner	Art Unit	
	MICHAEL D. MEUCCI	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 November 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This application is in response to the request for reconsideration filed 08 August 2007.

2. Petition under 37 CFR 1.137(b), filed 08 August 2007, to revive the application from unintentional abandonment has been granted.

3. Claims 1-23 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 8, and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thibault in view of Stawikowski.

a. With respect to claims 1 and 18, Thibault discloses an industrial control system for controlling an industrial process comprising:

a plurality of control devices each of which contributes to the controlling of the controlled process (col. 3, line 60); a web access interface (fig. 1, item 16) including an Internet interface (fig. 1, item 25a) and a control network interface (fig. 1, item 25b) wherein the control network interface is coupled to the plurality of control devices by way of a network (fig. 1, item 30), and wherein the Internet interface is capable of being coupled to a remote device (fig. 1, item 12) via the Internet (col. 4, lines 33-34), the web

access interface executing: an Internet communications program (fig. 1, item 25a) executing on the web access interface that receives an Internet signal from the internet having socket API data and formatted in accordance with a TCP/IP protocol, wherein the Internet communications program extracts the socket API data from the Internet signal and provides a socket API signal including the socket API data (col. 6, lines 50-53); and a control network communications program (fig. 1, item 25b; col. 7, lines 1-2) that receives the socket API signal and transmits a network signal based upon the socket API signal to an appropriate one of the control devices in accordance with the Internet signal, wherein the socket API data is included within the network signal and processed at the one of the control devices (col. 6, lines 47-49).

Thibault does not explicitly teach that the control devices contribute by communicating data over a control network using a control network protocol. However, Stawikowski discloses: "The communications system is based on the Simple Object Access Protocol (SOAP)," (paragraph [0007] on page 1). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize a control network protocol for communicating data over the control network. The communications system is based on SOAP… "for the purpose of providing the remote device with supervision, display, control, configuration or programming functions of the automation equipment," (paragraph [0007] on page 1 in Stawikowski). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the control devices contribute by communicating data over a control network using a control network protocol in the system as taught by Thibault.

Thibault does not explicitly teach that each control device includes a respective web server program and that the network signal is formatted according to a protocol of the control network and not formatted in accordance with any Internet transport layer protocol and any Internet network layer protocol. Stawikowski teaches that automation equipment can include a web server to exchange (process) data (par. 3, lines 1-3; par. 19, lines 10-11). Stawikowski also teaches that the SOAP protocol can be used between automation equipment and control devices (paragraph [0007] on page 1). Thibault and Stawikowski are analogous art because they are both from the same field of endeavor of networked automation equipment. At the time of invention it would have been obvious to one of ordinary skill in the art to modify Thibault's system by allowing each process control apparatus and the server digital data processor to include a web server and format the network signal in accordance to a protocol of the control network and not in accordance with any internet transport or network layer protocol, as taught by Stawikowski. The motivation for doing so would have been to allow each process control apparatus to exchange data with the server digital data processor in a web-based fashion (par. 3, lines 2-4) and to provide the remote device with supervision, display, *control*, configuration or programming functions of the automation equipment (paragraph [0007] on page 1). It would also have been obvious to modify Thibault's system to use UDP/IP between the object manager and the control apparatus, as taught by Stawikowski. Therefore it would have been obvious to combine Stawikowski and Thibault for the benefit of web-based data exchange, less network overhead, and to provide the remote device with supervision, display, *control*, configuration or

programming functions of the automation equipment to obtain the invention as specified in claim 1.

b. With respect to claim 2, Thibault discloses that the control network communications program further receives an additional network signal from another of the control devices and provides an additional socket API signal based upon the additional network signal, wherein both the additional network signal and the additional socket API signal include application-level information; and wherein the Internet communications program receives the additional socket API signal and formats the additional socket API signal in accordance with the TCP/IP protocol for transmission over the Internet to an additional remote device (col. 6, lines 53-56).

c. With respect to claim 3, Thibault does not explicitly disclose that the control communications module encodes the socket API data from the socket API signal with a second protocol different from the TCP/IP protocol, whereby the control devices can provide web functionality without the overhead of a TCP/IP stack.

Stawikowski teaches that the UDP/IP protocol can be used between automation equipment and control devices.

Thibault and Stawikowski are analogous art because they are both from the same field of endeavor of networked automation equipment. At the time of invention, it would have been obvious to modify Thibault's system to use UDP/IP between the object manager and the control apparatus, as taught by Stawikowski. The motivation for doing this would have been to have less network overhead. Therefore it would have been

obvious to combine Stawikowski and Thibault for the benefit of web-based data exchange and less network overhead to obtain the invention as specified in claim 3.

d. With respect to claim 8, Thibault does not explicitly disclose that the web server implements at least one of an HTTP, an FTP, an SMTP, a Telnet command, a DNS command, and a WINS command based upon the socket API data.

Stawikowski teaches that a web server used in automation equipment can use an HTTP command (par. 25, lines 1-4).

Thibault and Stawikowski are analogous art because they are both from the same field of endeavor of networked automation equipment. At the time of invention, it would have been obvious to one of ordinary skill in the art that if Thibault's system is modified as described in claim 1 to utilize web servers, one could also modify Thibault's system to use an HTTP command, as taught by Stawikowski. The motivation for doing so would have been to allow Thibault's system to exchange web-based data. Therefore, it would have been obvious to combine Thibault with Stawikowski for the benefit of exchanging web-based data to obtain the invention as specified in claim 8.

e. With respect to claim 14, Thibault discloses that the Internet communications program and the control network communications program are comprised within a single translation module (fig. 1, item 16).

f. With respect to claims 15 and 16, Thibault does not explicitly disclose that the control devices are control nodes each including a respective processor and that the respective processors are programmable logic controllers.

Stawikowski teaches that programmable logic controllers can be used as automation equipment in a remote process control system (par. 2, lines 1-2).

Thibault and Stawikowski are analogous art because they are both from the same field of endeavor of networked automation equipment. At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault's system by allowing the specified process control apparatus to be a programmable logic controller, as taught by Stawikowski. The motivation for doing so would have been to allow Thibault's system to have a process control apparatus that can run a program in order to provide additional automation functions (par. 2, lines 6-8). Therefore, it would have been obvious to combine Thibault with Stawikowski for the benefit of additional automation functions to obtain the invention as specified in claims 15 and 16.

g. With respect to claim 17, Thibault discloses that the control devices are I/O modules including processing devices (col. 3, lines 66-67 – col. 4, lines 1-2), and the web access interface includes a programmable logic controller (col. 4, lines 17-19).

h. With respect to claim 19, Thibault discloses that the second means includes at least one port, and wherein the one port includes at least one communication link coupling the port with one of the control devices (fig. 1, items 25c, 30, and 23a).

6. Claims 4-7, 9, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thibault in view of Stawikowski as applied to claims 1, 18, and 19 above, and further in view of Kastner.

a. With respect to claims 4 and 5, Thibault and Stawikowski do not explicitly disclose that the Internet communications program includes a first software program for processing an Internet media access control protocol with respect to the Internet signal and that the Internet media access control protocol is one of an Ethernet protocol, a Token Ring, protocol, a FDDI protocol, an ATM protocol, a SONET protocol, an X.25 protocol, and a frame relay protocol.

Kastner teaches that Ethernet can be used to communicate between two computing devices (col. 6, lines 1-5). Thibault, Stawikowski, and Kastner are all analogous art because they are from the same field of endeavor of remote industrial control systems. At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to use Ethernet to communicate between the client and command processor, as taught by Kastner. The motivation for doing so would have been to enable Thibault and Stawikowski's system to use standard Ethernet components that are widely available (col. 6, lines 6-8). Therefore it would have been obvious to combine Kastner with Thibault and Stawikowski for the benefit of widely available standard components to obtain the invention as specified in claims 4 and 5.

b. With respect to claim 6, Thibault discloses that the Internet communications program includes a second software program for processing an IP protocol with respect to the Internet signal, wherein the processing includes obtaining an IP address (col. 6, lines 50-53). If IP is being used, it is inherent that an IP address

is being obtained because both the source and destination IP addresses are contained in the header of an IP packet (Stevens, page 34, fig. 3.1).

c. With respect to claim 7, Thibault discloses that the Internet communications program includes a third software program for processing a TCP protocol with respect to the Internet signal (col. 4, lines 43-47).

d. With respect to claim 9, Thibault and Stawikowski do not explicitly disclose that the control network communications program includes a first program for formatting the socket API signal in accordance with an internal media access protocol and that the internal media access control protocol is selected from the group consisting of a DeviceNet protocol, a ControlNet protocol, and an Ethernet protocol.

Kastner teaches that an Ethernet protocol can be used to communicate signals between a control device and an operating unit (col. 6, lines 1-5). Thibault, Stawikowski, and Kastner are all analogous art because they are from the same field of endeavor of remote industrial control systems. At the time of invention it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to utilize Ethernet for communication between the process control apparatus and the object manager, as taught by Kastner. The motivation for doing so would have been to be able to use standard Ethernet equipment that is readily available (col. 6, lines 6-8). Therefore, it would have been obvious to combine Kastner with Thibault and Stawikowski for the benefit of standard equipment that is readily available to obtain the inventions specified in claim 9.

e. With respect to claim 20, Thibault discloses that the third means includes programs allowing for processing and formatting in accordance with an Internet communications protocol (col. 4, lines 43-47).

Thibault and Stawikowski do not explicitly disclose that the set of programs allows for processing and formatting in accordance with an Internet media access control protocol, a control network protocol, and an internal media access control protocol. Kastner teaches that Ethernet can be used to communicate between two computing devices (col. 6, lines 1-5), that HTTP can be used to transmit information between a control device and an operating unit (col. 6, lines 64-66), and that Ethernet can be used to communicate signals between a control device and an operating unit (col. 6, lines 1-5). Thibault, Stawikowski, and Kastner are all analogous art because they are from the same field of endeavor of remote industrial control systems. At the time of invention, it would have been obvious to modify Thibault and Stawikowski's system to use Ethernet to communicate between the client and the command processor, as taught by Kastner. The motivation for doing so would have been to enable Thibault and Stawikowski's system to utilize standard Ethernet components that are readily available (col. 6, lines 6-8). At the time of invention, it would have been obvious to modify Thibault and Stawikowski's system to use HTTP to communicate between the control apparatus and the object manager, as taught by Kastner. The motivation for doing so would have been to allow Thibault and Stawikowski's system to exchange web-based data. At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to utilize Ethernet

for communications between the process control apparatus and the object manager, as taught by Kastner. The motivation for doing so would have been to enable Thibault and Stawikowski's system to use standard Ethernet equipment that is readily available (col. 6, lines 6-8). Therefore it would have been obvious to combine Kastner with Thibault and Stawikowski for the benefit of standard components and the ability to exchange web-based data to obtain the invention as specified in claim 20.

f. With respect to claim 21, Thibault discloses a method of communicating information between a plurality of control devices (col. 3, line 60) within an industrial control system and a remote device (fig. 1, item 12) coupled to the industrial control system by way of the Internet (fig. 1, item 18; col. 4, lines 33-34), the method comprising: receiving a request signal (col. 6, lines 46-47) at a web access interface (fig. 1, item 16), wherein the request signal has been provided over the Internet (col. 4, lines 33-34) from the remote device (fig. 1, item 12); processing a TCP/IP protocol with respect to the request signal by way of an Internet communications program (fig. 1, item 25a) of the web access interface, in order to extract socket API data in the form of a socket API signal (col. 6, lines 50-53); determining an appropriate destination control device from among the plurality of control devices (col. 6, lines 27-33); and delivering the network signal to the appropriate destination control device so that the socket API data can be processed by the respective web server program (col. 5, lines 49-50).

Thibault does not explicitly disclose that each of the control devices has a respective web server program. Stawikowski teaches that automation equipment can include a web server to exchange (process) data (par. 3, lines 1-3; par. 19, lines 10-11).

Thibault and Stawikowski are analogous art because they are from the same field of endeavor of remote industrial control systems. At the time of invention it would have been obvious to one of ordinary skill in the art to modify Thibault's system by allowing each process control apparatus and the server digital data processor to include a web server, as taught by Stawikowski. The motivation for doing so would have been to allow each process control apparatus to exchange data with the server digital data processor in a web-based fashion (par. 3, lines 2-4).

Thibault and Stawikowski do not explicitly disclose that the method comprises processing an Internet media access control protocol and formatting the socket API signal in accordance with a control network protocol and an internal media access control protocol to produce a network signal. Kastner teaches that Ethernet can be used to communicate between two computing devices (col. 6, lines 1-5) and that HTTP can be used to transmit information between a control device and an operating unit (col. 6, lines 64-66) and that Ethernet can be used to communicate signals between a control device and an operating unit (col. 6, lines 1-5). At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to use Ethernet to communicate between the client and the command processor, as taught by Kastner. The motivation for doing so would have been to enable Thibault and Stawikowski's system to utilize standard Ethernet components that are readily available (col. 6, lines 6-8). At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to use HTTP to communicate between the control apparatus and the object manager, as

taught by Kastner. The motivation for doing so would have been to allow Thibault and Stawikowski's system to exchange web-based data. At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to utilize Ethernet for communications between the process control apparatus and the object manager, as taught by Kastner. The motivation for doing so would have been to enable Thibault and Stawikowski's system to use standard Ethernet equipment that is readily available (col. 6, lines 6-8). Therefore it would have been obvious to combine Thibault and Stawikowski and Kastner for the benefit of standard components and the ability to exchange web-based data to obtain the invention as specified in claim 21.

g. With respect to claim 22, Thibault discloses providing an additional network signal from one of the plurality of control devices to the web access interface, wherein the additional network signal includes additional socket API data; processing the additional network signal with respect to the control network protocol and the internal media access control protocol to produce an additional socket API signal; formatting the additional socket API signal in accordance with the TCP/IP protocol and the Internet media access control protocol to generate an Internet signal; and providing the Internet signal onto the Internet for transmission to an additional remote device (col. 6, lines 53-56).

h. With respect to claim 23, Thibault discloses that the Internet signal is transmitted as a series of separate data packets (col. 6, line 51).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thibault in view of Stawikowski and Keeley (U.S. 5,966,519).

With respect to claim 10, Thibault teaches: a plurality of control devices each of which contributes to the controlling of the controlled process (col. 3, line 60); a web access interface (fig. 1, item 16) including an Internet interface (fig. 1, item 25a) and a control network interface (fig. 1, item 25b) wherein the control network interface is coupled to the plurality of control devices by way of a network (fig. 1, item 30), and wherein the Internet interface is capable of being coupled to a remote device (fig. 1, item 12) via the Internet (col. 4, lines 33-34), the web access interface executing: an Internet communications program (fig. 1, item 25a) executing on the web access interface that receives an Internet signal from the internet having socket API data and formatted in accordance with a TCP/IP protocol, wherein the Internet communications program extracts the socket API data from the Internet signal and provides a socket API signal including the socket API data (col. 6, lines 50-53); and a control network communications program (fig. 1, item 25b; col. 7, lines 1-2) that receives the socket API signal and transmits a network signal based upon the socket API signal to an appropriate one of the control devices in accordance with the Internet signal, wherein the socket API data is included within the network signal and processed at the one of the control devices (col. 6, lines 47-49).

Thibault does not explicitly teach that the control devices contribute by communicating data over a control network using a control network protocol. However, Stawikowski discloses: “The communications system is based on the Simple Object

Access Protocol (SOAP)," (paragraph [0007] on page 1). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize a control network protocol for communicating data over the control network. The communications system is based on SOAP… "for the purpose of providing the remote device with supervision, display, control, configuration or programming functions of the automation equipment," (paragraph [0007] on page 1 in Stawikowski). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the control devices contribute by communicating data over a control network using a control network protocol in the system as taught by Thibault.

Thibault does not explicitly teach that each control device includes a respective web server program and that the network signal is formatted according to a protocol of the control network and not formatted in accordance with any Internet transport layer protocol and any Internet network layer protocol. Stawikowski teaches that automation equipment can include a web server to exchange (process) data (par. 3, lines 1-3; par. 19, lines 10-11). Stawikowski also teaches that the SOAP protocol can be used between automation equipment and control devices (paragraph [0007] on page 1). Thibault and Stawikowski are analogous art because they are both from the same field of endeavor of networked automation equipment. At the time of invention it would have been obvious to one of ordinary skill in the art to modify Thibault's system by allowing each process control apparatus and the server digital data processor to include a web server and format the network signal in accordance to a protocol of the control network and not in accordance with any internet transport or network layer protocol, as taught by

Stawikowski. The motivation for doing so would have been to allow each process control apparatus to exchange data with the server digital data processor in a web-based fashion (par. 3, lines 2-4) and to provide the remote device with supervision, display, *control*, configuration or programming functions of the automation equipment (paragraph [0007] on page 1). It would also have been obvious to modify Thibault's system to use UDP/IP between the object manager and the control apparatus, as taught by Stawikowski. Therefore it would have been obvious to combine Stawikowski and Thibault for the benefit of web-based data exchange, less network overhead, and to provide the remote device with supervision, display, *control*, configuration or programming functions of the automation equipment to obtain the invention as specified in claim 1.

Thibault and Stawikowski do not explicitly disclose that the internal media access control protocol is selected from a group consisting of a DeviceNet protocol and a ControlNet protocol. However, Keeley discloses: "A number of different communication links are commonly used in industrial controllers including proprietary links defined and used by a particular manufacturer and open links such as ControlNet, DeviceNet and Ethernet whose specifications are published and may be used broadly by a number of manufacturers and suppliers," (lines 24-29 of column 1). It would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to have the internal media access control protocol selected from a group consisting of a DeviceNet protocol and a ControlNet protocol. "The communication links differ in physical aspects, for example, the type of media (e.g., co-axial cable, twisted pair, light fiber, etc.) as well as

the electrical details of its operation, (e.g., baud rate, number of channels, word transmission size, etc.). At a higher level, the communication links differ in how messages are formatted and in the designation of the meaning of standardized messages," (lines 29-35 of column 1 in Keeley). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the internal media access control protocol selected from a group consisting of a DeviceNet protocol and a ControlNet protocol in the system as taught by Thibault and Stawikowski.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thibault, Stawikowski, and Keeley, in view of Kastner.

With respect to claim 11, Thibault and Stawikowski do not explicitly disclose that the control network communications program includes a second program for formatting the socket API signal, as formatted in accordance with the internal media access protocol, also in accordance with a control network protocol.

Kastner teaches that HTTP can be used to transmit information between a control device and an operating unit (col. 6, lines 64-66). Thibault, Stawikowski, and Kastner are all analogous art because they are from the same field of endeavor of remote industrial control systems. At the time of invention, it would have been obvious that one could modify Thibault and Stawikowski's system to use HTTP to communicate between the control apparatus and the object manager, as taught by Kastner. The motivation for doing so would have been to allow Thibault and Stawikowski's system to

exchange web-based data. Therefore it would have been obvious to combine Kastner with Thibault and Stawikowski for the benefit of exchanging web-based data to obtain the invention as specified in claim 11.

9. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thibault in view of Stawikowski as applied to claim 1 above, and further in view of Kalajan.

With respect to claims 12 and 13, Thibault and Stawikowski do not explicitly disclose that the web access interface includes a table for converting IP address information to control network addresses corresponding to the plurality of control devices, and wherein, upon receiving the Internet signal at the web access interface, the web access interface determines the appropriate one of the control devices to receive the socket API data based upon an IP address within the Internet signal and that the table converts at least one of IP addresses to control network addresses and IP addresses plus port addresses to control network addresses.

Kalajan teaches that a table can be used to convert IP address information to network resource addresses and to determine which device should receive the data (col. 2, lines 39-41, 45-48, and 50-52). At the time of invention, it would have been obvious to one of ordinary skill in the art to modify Thibault and Stawikowski's system to include a table within the server digital data processor to convert IP address information to network resource addresses and to determine which device should receive the data, as taught by Kalajan. The motivation for doing so would have been to provide a more

efficient way to distribute information than the broadcast method Thibault's system uses. Therefore it would have been obvious to combine Kalajan with Thibault and Stawikowski for the benefit of more efficient information distribution to obtain the invention as specified in claims 12 and 13.

Response to Arguments

10. Applicant's arguments filed 09 August 2008 have been fully considered but they are not persuasive.

11. (A) Regarding claim 1, the applicant contends that Stawikowski do not meet the limitations of: the communication between the control devices and the web interface be formatted in accordance with the protocol of a control network, wherein the network signal is not formatted in accordance with any Internet transport layer protocol and any Internet network layer protocol. The examiner respectfully disagrees.

As to point (A), the applicant argues that the SOAP protocol is an Internet application layer protocol and normally transmitted using both an Internet transport layer protocol and an Internet network layer protocol (applicant's remarks, lines 17-19 of page 11). The examiner agrees with this assertation. The examiner points out that the SOAP protocol is in fact **formatted** in the Internet application layer (layer 7 of the OSI model). The examiner also points out that the SOAP protocol **uses** both the Internet transport layer (layer 4) and Internet network layer (layer 3) for transmission. The use of the transport and network layers, however, does not concede that the SOAP protocol

is formatted in these layers, as argued. The SOAP protocol is still formatted as an application layer protocol, as is required by the claim, and is not formatted as a transport or network layer protocol, which is also required by the claims. As such, the rejection remains proper and is maintained by the examiner.

The applicant also appears to be arguing the combination of Thibault in view of Stawikowski cannot teach the claimed invention because the claims are directed to a control network and that it would be unreasonable to construe as a control network what the rejection points to as a control network. This argument is unpersuasive. The applicants have not provided an explicit definition of control network in their specification. The communication links (fig. 1 elem. 80) provides support in the specification for the term control network. Where the term communication links are discussed, the specification merely use exemplary language. For example, the specification at page 7 lines 10-13 describes how these communication links "can" be certain media and are "typically" a proprietary or specialized network suitable for industrial control. The specification then goes on to describe at page 10 lines 13-17 how the internal MAC protocol over the communication links is "*typically* one of DeviceNet or ControlNet, although the protocol can *vary* depending on the embodiment." Given the lack of a specific definition, the examiner fails to see why the claim language at issue should be limited in scope in the manner argued by the applicants. If the applicants intend the scope of the claims to be limited to a particular type of network, the claims should be amended accordingly.

12. (B) Regarding claim 10, new grounds of rejection were necessitated by amendment. See rejection above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached at (571) 272-3868. The fax phone number for this Group is 571-273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2442